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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,126	07/24/2002	Alain Goux	P22010	3526
7055 7590 03/27/2007 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER SALVATORE, LYNDIA	
			ART UNIT 1771	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/27/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary

Application No.

10/069,126

Applicant(s)

GOUX ET AL.

Examiner

Lynda M. Salvatore

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 and 30-38 is/are pending in the application.
- 4a) Of the above claim(s) 34-38 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31-33 is/are allowed.
- 6) ☒ Claim(s) 15-28,30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's request for continuing examination (RCE), amendment and accompanying remarks filed 12/21/06 and 1/29/07 have been fully considered and entered. Applicant's amendments are not found patently distinguishable over the prior art and Applicant's remarks are not found persuasive of patentability for reasons set forth herein below.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 15-28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer et al., US 5,916,393 in view of Riedel et al., US 5,631,073.

Applicant amended claim 15 to recite wherein the adhesive has a viscosity of "greater than" 80,000-150,000cP. Applicant argues that the combination of prior art fails to teach this newly added limitation. In addition, Applicant argues that combination of prior art does not teach the claimed "immersion" limitation. Rather, Applicant asserts that the teaching of the adhesive penetration by Shaffer et al., is fundamentally different from the claimed limitation of "fibers being immersed". Applicant submits that immersion means to completely cover whereas penetration means to push through. Applicant argues that present claims refer to amount the fibers are immersed in the adhesive i.e., the distance from the fibers to the surface of the adhesive.

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Applicant further argues a lack of motivation to combine references on the grounds that Shaffer et al., teach a glass fiber substrate whereas the Riedel et al., teach a polyolefin fiber substrate. These arguments are not found persuasive.

With regard to Applicant's newly added claim limitation of an adhesive having a viscosity of "greater than" 80,000-150,000cP, it is the position of the Examiner that absent unexpected results to the contrary there is not a patently distinguishable difference between an adhesive having a viscosity of 80,000cP and an adhesive having a viscosity of 80,001cP. Shaffer et al., teach a viscosity of ranging from 5,000-80,000cP (column 3, 55-60). Since, Shaffer et al., teach employing high viscosity adhesives to provide resistance to creep (gradual flow) in the final product at higher temperatures, it is the position of the Examiner that it would be obvious to one having ordinary skill in the art at the time the invention was made to optimize the viscosity of the adhesive as a function of gradual flow rates. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

With regard to Applicant's arguments directed to the difference between penetration and immersion, the Examiner submits that Shaffer et al., teach that the adhesive is applied in a molten state such that the applied adhesive is forced to flow and penetrate the substrate while in a liquid state (column 6, 15-60). It is the position of the Examiner that such an application method presently meets the limitation of fibers being immersed. Moreover, it is the position of the Examiner that there is not a patently distinct difference between the Shaffer et al., substrate having a layer of adhesive that penetrates the substrate to the claimed depth range and the instant substrate immersed in an adhesive to the claimed depth range. Applicant asserts that immersion

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generally means completely covered or fully coated, however, Applicant does not set forth such limitations. Presently, claim 15 is limited to a layer of adhesive covering one face of the support wherein the fibers are immersed to defined penetration depth. Applicant does not claim that the adhesive fully covers the substrate or is fully coated onto the substrate. Thus, it appears that Applicant's arguments are not commensurate with the claimed subject matter.

With regard to Applicant's arguments directed to the non-woven substrate, it is respectfully pointed out that Shaffer et al., clearly disclose a variety of suitable fibrous substrates made from inorganic, organic, minerals or thermoplastic materials such as polymers (column 2,40-45). Though Shaffer et al., exemplifies a non-woven support made from glass fibers, it would be improper to ignore the disclosure directed to the other fibrous substrate materials. To that end, the secondary reference of Riedel et al., was specifically relied upon to teach the claimed non-woven support features. It is the position of the Examiner that since the primary reference of Shaffer et al., fails to specifically teach the features of the fibrous non-woven substrate made from organic or thermoplastic materials, it is proper to look to the prior art to identify other suitable non-woven structures made from those materials for the intended use.

To reiterate, the patent issued to Shaffer et al., teach a method of penetrating a porous substrate with pressure sensitive adhesive (Abstract, column 1, 54-60 and column 5, 8-32). Suitable porous substrates include non-woven products (column 7, 31-35). Shaffer et al., teach extruding the adhesive onto the substrate and then subjecting the adhesive to an impingement method such that the adhesive penetrates the substrate ranging in distance between .1mm to .13mm (column 1, 65-column 2, 5 and column 5, 31-33). Shaffer et al., teach that the disclosed impingement method improves the bond between the adhesive and the porous substrate (column

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4, 45-56). Shaffer et al., teach a viscosity of ranging from 5,000-80,000cP (column 3, 55-60). Specifically, Shaffer et al., teach employing high viscosity adhesives to provide resistance to creep (gradual flow) in the final product at higher temperatures (column 3, 55-60).

Shaffer et al., fails to teach the claimed non-woven support features, however, the patent issued to Riedel et al., teach a non-woven sheet and pressure sensitive adhesive tapes formed therefrom (Abstract). With regard to the felt or needle-bonded limitation, Riedel et al., teach forming a non-woven by physical entanglement or needling (Column 6, 57-62). With regard to the adhesive layer limitation, Riedel teach coating a layer of pressure sensitive adhesive onto the non-woven sheet (Column 9, 22-25). With regard to the rolling and winding limitations, Riedel et al., teach that the non-woven sheet material may be conveyed directly to an adhesive coater, followed by slitting into individual tape rolls. With regard to the limitation of coating the opposite side of the non-woven support with an anti-varnish, Riedel et al., teach the use of a releasable liner that covers the adhesive layer or a release coating, such as a low adhesion backsize, coated on the non-adhesive side of the tape to facilitate the winding of the tape into rolls (Column 10, 46-53). With regard to the support thickness limitation, Riedel et al., teach a thickness ranging from .04mm to about .5mm in thickness (Column 6, 31-35). With regard to the surface mass limitations, Riedel et al., teach a weight ranging from 10 g/m² to about 100 g/m² (Column 6,35-41). With regard to the calendaring limitations, Riedel et al., teach pattern embossing or flat calendaring the non-woven sheet (Column 23, 5-25). With regard to the fiber material limitations, Riedel et al., teach a non-woven structure formed from a variety of materials such as polyester staple fibers (Column 5, 8-23). In addition, Riedel et al., also teach employing polyester, polyethylene, polypropylene or polybutylene binder fibers in amount ranging from 5-

50% (Column 5,50-Column 6, 30). With regard to the ratio of polyester to viscose fibers, Riedel et al., teach in various examples illustrating the use of a fiber mixture consisting of 50% PET (polyethylene terephthalate), 30% rayon (viscose), and 20% diawa (binder fibers) (Column 15, table 3).

Therefore, motivated by the desire to improve the bond strength between the adhesive and the porous non-woven substrate, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the high viscosity pressure sensitive adhesive using the method taught by Shaffer et al., to the non-woven substrate taught by Riedel et al. Specification motivation to employ the substrate of Riedel et al., is found in the desire to provide a pressure sensitive non-woven tape product.

With regard to the physical property limitations of tearing effort, tearing resistance, modulus at elongation, unrolling effort and elongation break, the combination of prior art fails to explicitly teach these features, however, it is the position of the Examiner that said limitations are inherent to the adhesive tape provided by Shaffer et al., in view of Riedel et al., Support for said presumption is found in the use of like materials (i.e., a non-woven substrate and pressure sensitive adhesive) and the use of like processes such as impinging a pressure sensitive adhesive into the non-woven substrate, which would result in the claimed tearing effort, tearing resistance, modulus at elongation, unrolling effort and elongation break properties. Applicant is invited to evidence otherwise.

Allowable Subject Matter

4. As previously set forth in section 4 of the Office Action 7/28/06, claims 31-33 were found allowable. Presently, the prior art does not teach further applying a polyethylene or polyester

based powder to the adhesive face. An updated art search produced the closest prior art of Nelson et al., US 5,232,838 which teaches coating a substrate with a water based adhesive and a dusting layer of a cold water soluble powder (Abstract). Nelson et al., however, fails to teach a polyethylene or polyester based powder. Presently, no motivation exists to combine references to form an obviousness type rejection.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M. Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 15, 2007

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